Programming WebObjects I

Key Features

- Introduces WebObjects 4.5 tools and APIs for developing web applications
- Explores the fundamentals of web application design, development, and deployment
- Reinforces new concepts with practical, real-world examples and hands-on tutorials
- Provides the fastest, most cost-effective way to learn development with WebObjects
- Taught by experienced software engineers with dynamic presentation skills
- Consistently receives great reviews and high marks for content and delivery
- Offered at Apple iServices training centers or onsite at client locations worldwide

Other WebObjects Courses

To master WebObjects technology in the shortest time possible, these additional courses are highly recommended:

Programming WebObjects II
Advanced WebObjects topics, with particular emphasis on Enterprise Objects Framework and database connectivity. Intended for application developers and system architects.

WebObjects Deployment
Multiplatform web application deployment and administration techniques. Intended for system administrators and developers.

Programming WebObjects I teaches application programmers how to develop dynamic web applications using WebObjects 4.5, a rich Java-based development environment and high-performance web application server. This five-day course provides comprehensive, hands-on training using real-world examples that accelerate developers' knowledge of WebObjects. With the skills acquired in this course, developers can quickly build, easily maintain, and conveniently deploy full-featured web applications.

Objective

Learn how to develop dynamic web applications in Java using WebObjects 4.5.

Who should attend?

Application programmers, technical architects, and project managers who meet the following prerequisites:
- Three months of practical Java programming experience
- An understanding of object-oriented concepts
- Experience with HTML and SQL (beneficial)

Description

Programming WebObjects I combines lectures, demonstrations, and hands-on student exercises performed on Windows NT or Mac OS X Server systems.

The course covers
- Developing with WebObjects 4.5 tools and Java APIs
- Understanding the request-response loop—from browser to WebObjects and back
- Designing dynamic web pages with HTML elements such as forms, images, and frames
- Managing user sessions and state
- Creating reusable components
- Accessing databases from web applications
- Deploying and monitoring web applications

On completion, students receive all course materials, including a 600-page, indexed student manual, CD with lab exercises and solutions, and certificate of class attendance.

Course Syllabus

Lecture and Demo	Lab
Introduction to WebObjects	
Overview of WebObjects applications; the HTTP request-response cycle; introduction to the WebObjects development tools.	Reinforce basic concepts of WebObjects applications; gain familiarity with suite of development tools; create a simple WebObjects application that displays dynamic state.
Customizing Web Applications	
Creating a dynamic HTML user interface using prebuilt components and dynamic elements; maintaining state at the session and application level.	Store state at the session and application level; explore changing state at different points of the request-response cycle; understand how dynamic elements and components relate by creating a simple application entirely in source code.
Actions and Forms	
Mapping user input into actions in a web application; taking values from forms; exploring dynamic elements for user input.	Use actions to navigate (transition) pages; get user input using a form; store state in the application and session.
WebObjects Control Points	
Using control points within the request-response cycle to customize behavior; accessing request headers, cookies, and form values; modifying the response; creating cookies.	Add and retrieve a cookie containing user state information; present conditional information based on HTTP headers.
Accessing Databases with Enterprise Objects	
Entity-Relationship modeling terminology; creating database-to-object mappings using Enterprise Objects Modeler; introduction to Enterprise Objects Modeler functionality.	Browse an existing database to create a default database-to-object mapping (model); create a new entity, add attributes and relationships; generate SQL to create database tables; generate source code.
Fetching Enterprise Objects	
Fetching Enterprise Objects from the database using Enterprise Objects Framework; building complex qualifiers; create sort orderings; filtering and sorting objects in memory; using the Enterprise Objects Modeler qualifier builder.	Fetch Enterprise Objects from a database.
Case Study	
Design patterns used in WebObjects programming; designing the business logic of a web application.	Create a basic online store application incorporating all previous topics.
Repeating and Conditional HTML	
Using dynamic elements to display repeating HTML fragments and to display HTML conditionally.	Extend the online store application so users can choose options for a product. Extend the online store application to display the customer's order in a repeating table.

"WebObjects training courses are an excellent resource that has saved our team a lot of time. I think the primary benefit is that your team can quickly ramp up technical expertise without wasting time solving problems others have already solved."

— T. J. Harais
General Manager and CIO
Medical Present Value, Inc.

"This course was an excellent use of my time, and I feel it has given me a good foundation on which to begin developing web-based applications."

— from Course Evaluation

Lecture and Demo	Lab
Editing Enterprise Objects	
Introduction to the concept of an Enterprise Object; using Enterprise Objects Framework to insert, update, and delete database entities; implementing custom business logic.	Create a new administration application that edits the products sold in the online store application; add, delete, and edit Enterprise Objects.
Managing Relationships	
To-one and to-many relationships in Enterprise Objects Framework; modeling many-to-many relationships; flattening relationships.	Extend the administration application to allow editing of objects' relationships.
Frames and Nested Components	
Using frames in a WebObjects application; creating nested components; basic parent-to-child component communication.	Create a reusable nested component that can accept values from its parent component.
Integrating Web Technologies	
Adding arbitrary HTML tags to a WebObjects component; adding embedded objects, JavaScript, applets; sending automatic mail messages from WebObjects.	Use JavaScript to add automatic form submission and basic client-side validation.
Direct Actions	
Interacting with a web application without the overhead of user sessions; creating bookmarkable pages, transitioning between direct actions and session-based requests.	Create an application that allows the user to search a database of products and bookmark the search results.
Overview of WebObjects Deployment	
Dealing with deployment issues: split installs; the Monitor administration tool; application statistics; sharing resources between applications using custom frameworks.	Create a shared custom framework; do an install-build of the online store application; launch and manage the online store using Monitor.

To Register

To attend Programming WebObjects I at an Apple iServices training center, please visit www.apple.com/iservices/technicaltraining for current schedules, locations, and registration information. To schedule an onsite course at your location, please call 800-848-6398 or email iservices@apple.com.

For More Information

For more information about Programming WebObjects I or other Apple iServices training, please visit www.apple.com/iservices/ technicaltraining, call 800-848-6398, or email iservices@apple.com. For additional information about training, consulting, integration, or support services from Apple iServices, visit www.apple.com/iservices.

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